CLAIMS

1.   An automatic programming method having an NC creation program-editing function for editing an NC creation program including a plurality of machining units and a machining
5   program for each machining unit, by using a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically according to a machining order, a program tree on which a plurality of machining program names relating to the
10   respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or both is displayed, and an editor section in which machining unit data corresponding to the machining unit name
15   specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform editing, comprising:
            displaying a machining unit corresponding to a cursor
20   position in the editor section and in any one of the product model and the work model or both displayed in the model display section in highlighted manner.

2.   An automatic programming method having an NC creation
25   program editing function for editing an NC creation program including a plurality of machining units and a machining program for each machining unit, by using a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically
30   according to a machining order, a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, a model display section

in which any one of a product model and a work model or
both is displayed, and an editor section in which machining
unit data corresponding to the machining unit name
specified on the machining shape tree or the machining
5   program corresponding to the machining program name
specified on the program tree is displayed to perform
editing, comprising:

inserting machining unit data corresponding to the
machining unit selected in the model display section in a
10   position specified in the editor section.

3.   The automatic programming method according to claim 2,
wherein the machining unit data includes a shape sequence
indicating a machining shape and data indicating a
15   machining content, and

the inserting includes inserting the shape sequence in
the machining unit data corresponding to the machining unit
selected in the model display section in a cursor position
in the editor section.

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4.   An automatic programming method having an NC creation
program editing function for editing an NC creation program
including a plurality of machining units and a machining
program for each machining unit, by using a program editing
25   screen having a machining shape tree on which a plurality
of machining unit names is displayed hierarchically
according to a machining order, a program tree on which a
plurality of machining program names relating to the
respective machining units is displayed hierarchically
30   according to the machining order, a model display section
in which any one of a product model and a work model or
both is displayed, and an editor section in which machining
unit data corresponding to the machining unit name

specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform editing, comprising:

5   inserting a machining program name corresponding to specified machining unit name in an insertion position specified in the program tree, and inserting a machining program corresponding to the specified machining unit name in an insertion position specified in the editor section.

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5.   A program for making a computer execute the method according to any one of claims 1 to 4.

6.   An automatic programming device comprising:

15   a display controller that displays a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically according to a machining order, a program tree on which a plurality of machining program names relating to the

20 respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or both is displayed, and an editor section in which machining unit data corresponding to the machining unit name

25 specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform editing; and

      an NC creation program editor that edits an NC

30 creation program including a plurality of machining units and a machining program for each machining unit, based on an input to the program editing screen,

      wherein the display controller displays a machining

unit corresponding to a cursor position in the editor section and in any one of the product model and the work model or both displayed in the model display section in highlighted manner.

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7. An automatic programming device comprising:

a display controller that displays a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically

10 according to a machining order, a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or

15 both is displayed, and an editor section in which machining unit data corresponding to the machining unit name specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform

20 editing;

an NC creation program editor that edits an NC creation program including a plurality of machining units and a machining program for each machining unit, based on an input to the program editing screen; and

25 a machining unit data-inserting unit that inserts machining unit data corresponding to the machining unit selected in the model display section in a position specified in the editor section.

30 8. The automatic programming device according to claim 7, wherein the machining unit data includes a shape sequence indicating a machining shape and data indicating a machining content, and

the machining unit data-inserting unit inserts the shape sequence in the machining unit data corresponding to the machining unit selected in the model display section in a cursor position in the editor section.

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9.   An automatic programming device comprising:

a display controller that displays a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically

10   according to a machining order, a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or

15   both is displayed, and an editor section in which machining unit data corresponding to the machining unit name specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform

20   editing;

an NC creation program editor that edits an NC creation program including a plurality of machining units and a machining program for each machining unit, based on an input to the program editing screen; and

25   an insertion unit that inserts a machining program name corresponding to specified machining unit name in an insertion position specified on the program tree, and inserts a machining program corresponding to the specified machining unit name in an insertion position specified in

30   the editor section.